

Public Meeting to Discuss No Discharge Zone (NDZ) Draft Application



Waterbodies in Lancaster County and portion of one
Creek in Northumberland County
February 22, 2011

Agenda

Introduction to No Discharge Zones (NDZs) - Margaret Smigo
Piedmont Regional Water
Quality Studies Coordinator

*Overview of NDZ application prepared by
Northern Neck Planning District Commission (NNPDC)
for waterbodies in Lancaster County* – Stuart McKenzie
NN PDC Environmental
Planner

Question and Answer Session – *Group; Please save your
questions until the end of
each presentation*

Clean Water Act (1972)

- The Clean Water Act (CWA) prohibits the discharge of untreated waste into United States territorial waters

And,

- Section 312 of the CWA mandates that all commercial and recreational vessels *with an installed toilet* be equipped with a United States Coast Guard (USCG) certified *Marine Sanitation Device (MSD)*

Marine Sanitation Devices

- **Type I MSD** must produce an effluent having a fecal coliform bacteria count $\leq 1,000$ per 100 milliliters and no visible floating solids.
- **Type II MSD** must produce an effluent having a fecal coliform bacteria count ≤ 200 per 100 milliliters and suspended solids ≤ 150 milligrams per liter
 - *Required on boats > 65 ft*
- **Type III MSD** is a holding tank (with or without discharge capability)

****NOTE**** MSD discharge *even at the allowable concentration* can be detrimental to local water quality of Bay tributaries and can further exacerbate not only bacteria problems but nutrient problems as well !

A No Discharge Zone...



Is a federally
designated body of
water where
discharge of *treated*
vessel waste is
prohibited (MSD I/II)

****NOTE****

A NDZ does NOT apply to grey water
discharges from boats !

Why is Treated Overboard Discharge (MSD I/II) an Issue?

- MSDs (I/II) may not be capable of destroying enough bacteria in waterways with bacteria impairments
- MSDs (I/II) may not ALL be capable of destroying all pathogens in human waste (i.e. viruses – Hepatitis A, Norovirus)
- MSD (I/II) chemicals may be harmful to the environment
- Nutrients only minimally or partially removed by MSDs (I/II) (Nitrogen/Phosphorus)
 - Nutrients contribute to algae blooms which can lead to depletion of dissolved oxygen in water and ultimately, fish kills
 - Low or no dissolved oxygen affects aquatic organisms such as fish and crustaceans
 - Contributes to impairments of submerged aquatic vegetation (SAV)
 - Chesapeake Bay TMDL calls for significant nitrogen/phosphorus reductions

Federal NDZ Guidance

United States
Environmental
Protection Agency

Office of Water
Washington, DC 20460

EPA 842-B-94-004
August 1994



Protecting Coastal Waters from Vessel and Marina Discharges:

A Guide for State and Local Officials

**Volume I. Establishing No Discharge Areas under §312
of the Clean Water Act**

For Full Document Visit

<http://www.epa.gov/reg3wapd/nodischarge/index.htm>



Federal NDZ Guidance

Water Criteria for Designation

- Certain fresh waters
- Waters where the presence of adequate alternatives (i.e. sewage pump-outs) can be established
- Waters of particular environmental significance, regardless of pump-out availability (i.e. sensitive species)
- Areas surrounding drinking water intakes regardless of pump-out availability

Federal NDZ Guidance

Key elements of an application for NDZ designation:

- (1) A certification that the protection and enhancement of the waters described in the petition require greater environmental protection than the applicable Federal standard;*
- (2) A map showing the location of commercial and recreational pump-out facilities;*
- (3) A description of the location of pump-out facilities within waters designated for no discharge;*
- (4) The general schedule of operating hours of the pump-out facilities;*
- (5) The draught requirements on vessels that may be excluded because of insufficient water depth adjacent to the facility;*
- (6) Information indicating that treatment of wastes from such pump-out facilities is in conformance with Federal law; and*
- (7) Information on vessel population and vessel usage of the subject waters (EPA Guidance 842-B-94-004)*

Federal Requirements of MSDs in a NDZ

- In a no-discharge zone:
 - *Type III devices must be secured by*
 - *Closing overboard discharge valve and removing handle*
 - *Securing with a padlock or with non-removable wire tie*
 - *Type I and II devices must be secured by*
 - *Closing the seacock and padlocking it*
 - *Using a non-releasable wire tie*
 - *Removing the seacock handle (with the seacock closed)*
 - *Lock door leading to toilet*

Virginia Regulatory Background

VADEQ Guidance Memo No. 08-2003 (2/26/2008)

Visit <http://www.deq.virginia.gov/waterguidance/pdf/082003.pdf>

The Virginia NDZ process:

- Application process can be initiated by
 - Stakeholder petition (*external*)
 - Component of a water quality study clean up plan (*internal*)
- DEQ determines necessity, level of support, pump-out availability, prepare draft application in collaboration with stakeholders
- Public meeting and comment period
- Submit to EPA (lengthy public comment process as well)
- Present approved designation to SWCB

Virginia Regulatory Background

House Bill 1774 (2009 Session, Gen Assembly)

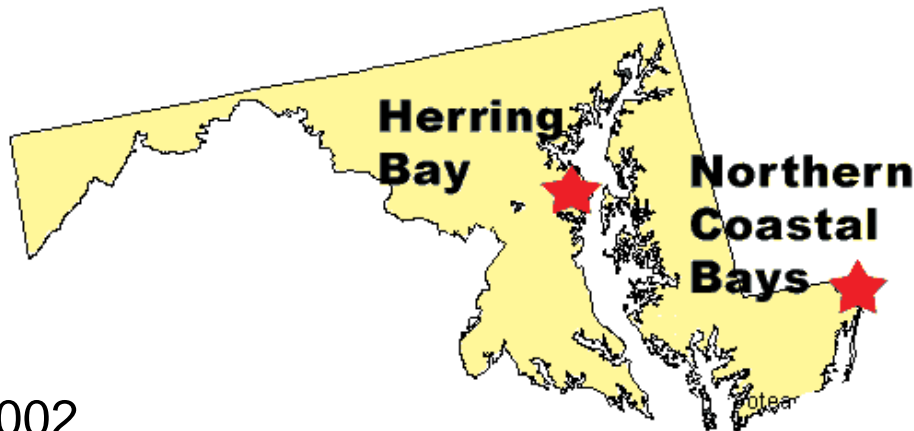
“The tidal creeks of the Commonwealth are hereby established as no discharge zones for the discharge of sewage and other wastes from documented and undocumented boats and vessels.”

- Mandates VA DEQ to implement federal law (i.e. apply to EPA)
- Restates federal NDZ law; *plus...*
 - Mandates that houseboats have holding tank & use pump-outs
 - Extends enforcement authority to **all** law enforcement agencies
 - Requires marinas in NDZs to give notice to patrons via:
 - Signage
 - Language in slip rental contracts

House Bill 1943 is a new bill which would revise HB 1774. For more information on this bill please visit:

<http://leg1.state.va.us/cgi-bin/legp504.exe?ses=111&typ=bil&val=HB1943>

NDZs in Maryland...



Maryland recently withdrew its application for a NDZ to cover their entire portion of the Chesapeake Bay

2002



Extent of VA Bacteria Impairments



Most tidal tributaries of Bay have a shellfish or recreation use impairment due to less volume and less flushing compared to larger waterbodies

Map of bacteria impairments - VADEQ Integrated Assessment Report 2008

NDZs in Virginia

Approved VA NDZs

- Smith Mountain Lake, Bedford, Franklin, & Pittsylvania Counties (2000)
- Lynnhaven River, Virginia Beach (2007)
- Broad and Jackson Creeks, Fishing Bay, Middlesex County (2009)

Application in revision

- Owl Creek / Rudee Inlet, Virginia Beach

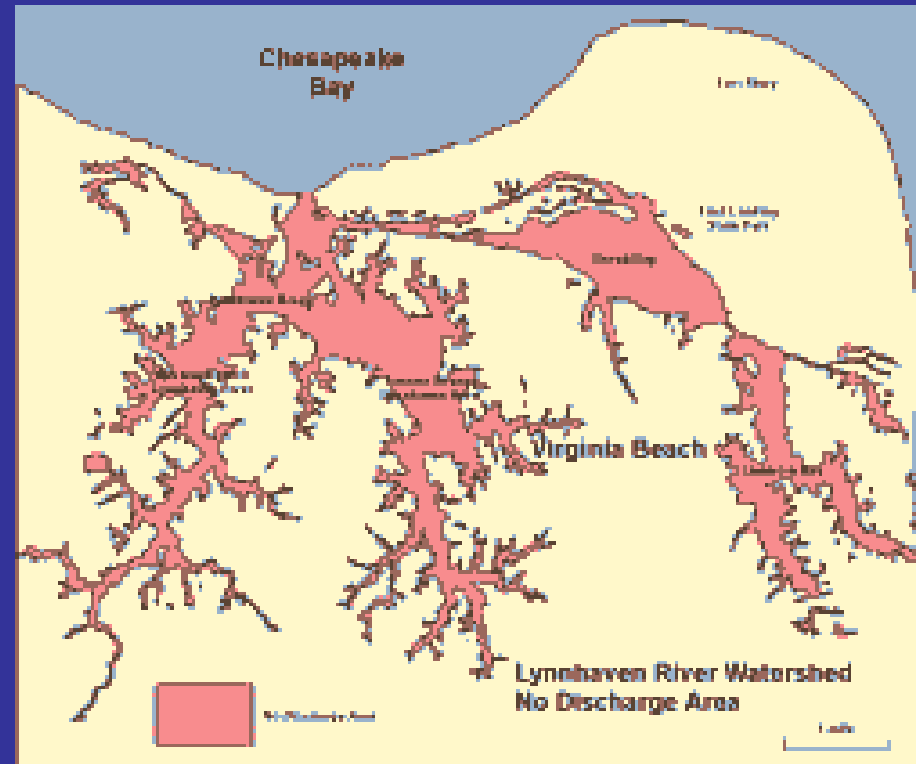
Applications in preparation

- Northern Neck counties – Farnham Creek to Rosier Creek from Richmond to Westmoreland Counties
 - Applications to be submitted for Creeks per County

Other nearby counties have requested information ☺

Virginia NDZ Experience - Lynnhaven

- Huge stakeholder involvement throughout TMDL/IP process
 - *Lynnhaven River Now* (non-profit group)
- Positive impact of NDZ outreach:
 - Shellfish growing areas closed since 1930's now re-opened
 - Cavalier Golf & Yacht Club reported more pump-outs
 - FYY 2006 - 154 pump outs (pre NDZ)
 - FYY 2007 - 299 pump-outs (post NDZ)



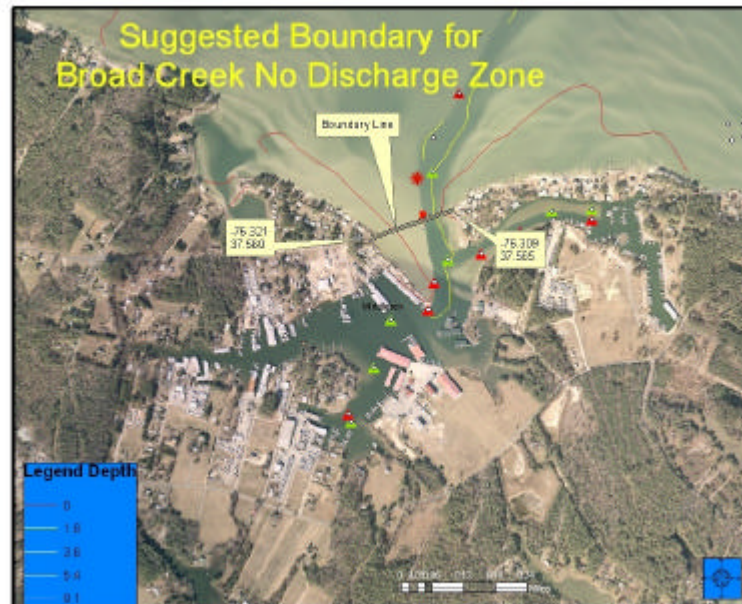
****Doubled the # of pump-outs****

****NOTE**** In addition to the NDZ, dye tablets are placed in MSD tanks upon pumpout. Other localities or marinas with NDZs may opt to make dye tablets mandatory to assist enforcement !

Virginia Experience – Deltaville

Including Broad & Jackson Creeks and Fishing Bay

- *Local citizen interest prompted NDZ application development*
- *Sign placement at marinas; best to solicit conspicuous land-based postings on private and/or marina property*
- *EPA approved 2009; will need time to assess effectiveness of NDZ on water quality*



Virginia Experience – Northern Neck

- Focus area includes tidal tributaries in Richmond (Farnham & Lancaster Creeks), Lancaster, Northumberland, & Westmoreland Counties (Farnham Ck to Rosier Ck)
- Includes ~40 impaired Shellfish/recreation use TMDL segments
- Strong NDZ support at local, county, & regional levels
- Opposition from the boating community – believe that preventing the use of MSDs in NDZ areas will actually contribute to the pollution in tributaries of the Bay
- Federal stimulus funding used towards data collection and application development (Contractor – NN PDC)
- Completion of NDZ applications for waterbodies in above counties; 2011 !!

Waterbodies proposed for NDZ designation in current draft application:

Lancaster County:

Mulberry, Deep, Greenvale, Paynes, Beach, Whitehouse, Town, Myer, Moran, Taylor, Carter, Mosquito, Little Oyster, Windmill Point Resort Boat Basin, Antipoison, Davenport, Tabbs, Dyer, and portion of Indian Creek in addition to both East and Western Branches of the Corrotoman River

Northumberland County: portion of Indian Creek

Why is a NDZ Beneficial?

- Can improve water quality which leads to the restoration of beneficial uses
- In impaired waterbodies, a NDZ addresses boats as a source allowing stakeholders to focus on “land based” source reductions
- Improves attractiveness of water bodies for marina owners & local business with minimal to no regulatory burden
- Encourages overall watershed stewardship

Public Comment Period for draft NDZ Application for waterbodies in Lancaster County

Draft Application Online:

<http://www.deq.virginia.gov/export/sites/default/tmdl/ndz/drafts/lancaster.pdf>

Send Comments by March 28, 2011 to:

Mail:

**Margaret Smigo
4949-A Cox Road
Glen Allen VA, 23060**

Email:

Margaret.Smigo@deq.virginia.gov

Fax:

(804)527-5106

Questions so Far?

VA DEQ NDZ Website: <http://www.deq.virginia.gov/tmdl/ndz.html>

To report a non-working pump-out contact Preston Smith at Virginia Department of Health (804)864-7468

Margaret Smigo – TMDL Coordinator (804)527-5124

David Lazarus – Watershed Program Manager (804)527-4299

